World TB Day

Tuberculosis

Questions & Answers

What is TB?
TB, or tuberculosis, is a disease caused by bacteria called *Mycobacterium tuberculosis.*

- The bacteria can attack any part of your body, but they usually attack the lungs.
- Just 50 years ago TB was the leading cause of death in the Industrialized world

Why should I care?

In the late 19th century, TB killed one out of every seven people living in the United States and Europe.

- Today there are 2 million deaths worldwide, in adults it is the second leading infectious disease killer.
- Worldwide there are 8.4 million new active cases of infectious TB.
- Of the world's six billion people, 2 billion are infected with latent TB including 15 million people in the U.S.

What is Latent TB?

→ **Latent TB -** a condition in which TB bacteria are alive but inactive in the body.
→ People with latent TB have no symptoms, don't feel sick and can't spread TB to others.
→ But, they usually have a positive skin test reaction and may develop TB disease or infectious TB later in life if they do not receive treatment for latent TB.
→ People who have latent TB can take medicine so that they will greatly reduce the likelihood of developing TB disease.

What is Infectious TB or TB disease?

→ Infectious TB happens when TB bacteria become active in a person and the immune system can't stop them from growing. The active bacteria begin to multiply in the body and cause TB disease. Some people develop TB disease soon after becoming infected, before their immune system can fight the TB bacteria. Other people may get sick later, when their immune system becomes weak for some reason.

→ Babies and young children often have immature immune systems. People infected with HIV, the virus that causes AIDS, have very weak immune systems. Other people can have weak immune systems, too, especially people with any of these conditions

- Substance abuse
- Diabetes mellitus
- Silicosis
- Cancer of the head or neck
- Leukemia or Hodgkin's disease
- Severe kidney disease
- Low body weight
- Certain medical treatments (such as corticosteroid treatment or organ transplants)

Symptoms of TB depend on where in the body the TB bacteria are growing. TB bacteria usually grow in the lungs. TB in the lungs may cause

- A bad cough that lasts longer than 2 weeks
- Pain in the chest
- Coughing up blood or sputum (phlegm from deep inside the lungs)

Other symptoms of TB disease could be:

- Weakness or fatigue
- Weight loss
- No appetite
- Chills
- Fever
- Sweating at night

Why don't I hear about it?

In the 1940s, scientists discovered the first of several drugs now used to treat TB. As a result, TB slowly began to disappear in the United States.

So what's the big deal?

TB has made a comeback. Between 1985 and 1992, while the country became complacent about TB and funding decreased, the number of TB cases increased.

At no time in recent history has tuberculosis (TB) been as great a concern as it is today.

Not only are TB cases on the increase in the U.S., but also the most serious aspect of the problem is the recent occurrence of outbreaks of drug-resistant

TB, which pose an urgent public health problem and require rapid intervention.

Can I get TB?

Yes – If you are exposed to an infectious person. TB is spread through the air from one person to another. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

TB is a reportable disease. When a person is diagnosed with active disease, the doctor contacts the local county public health department.

The local county health department assigns a nurse to conduct an investigation. People with active disease are most likely to spread it to people they spend time with every day, including family members, friends, and coworkers. People who may have been exposed to TB are contacted and arrangements are made for TB skin testing.

How is TB spread?

TB is spread through the air from one person to another. The bacteria are put into the air when a person with TB disease of the lungs or throat coughs or sneezes. People nearby may breathe in these bacteria and become infected.

When a person breathes in TB bacteria, the bacteria can settle in the lungs and begin to grow. From there, they can move through the blood to other parts of the body, such as the kidney, spine, and brain.

TB in the lungs or throat can be infectious. This means that the bacteria can be spread to other people. TB in other parts of the body, such as the kidney or spine, is usually not infectious.

Do we have TB in Michigan?

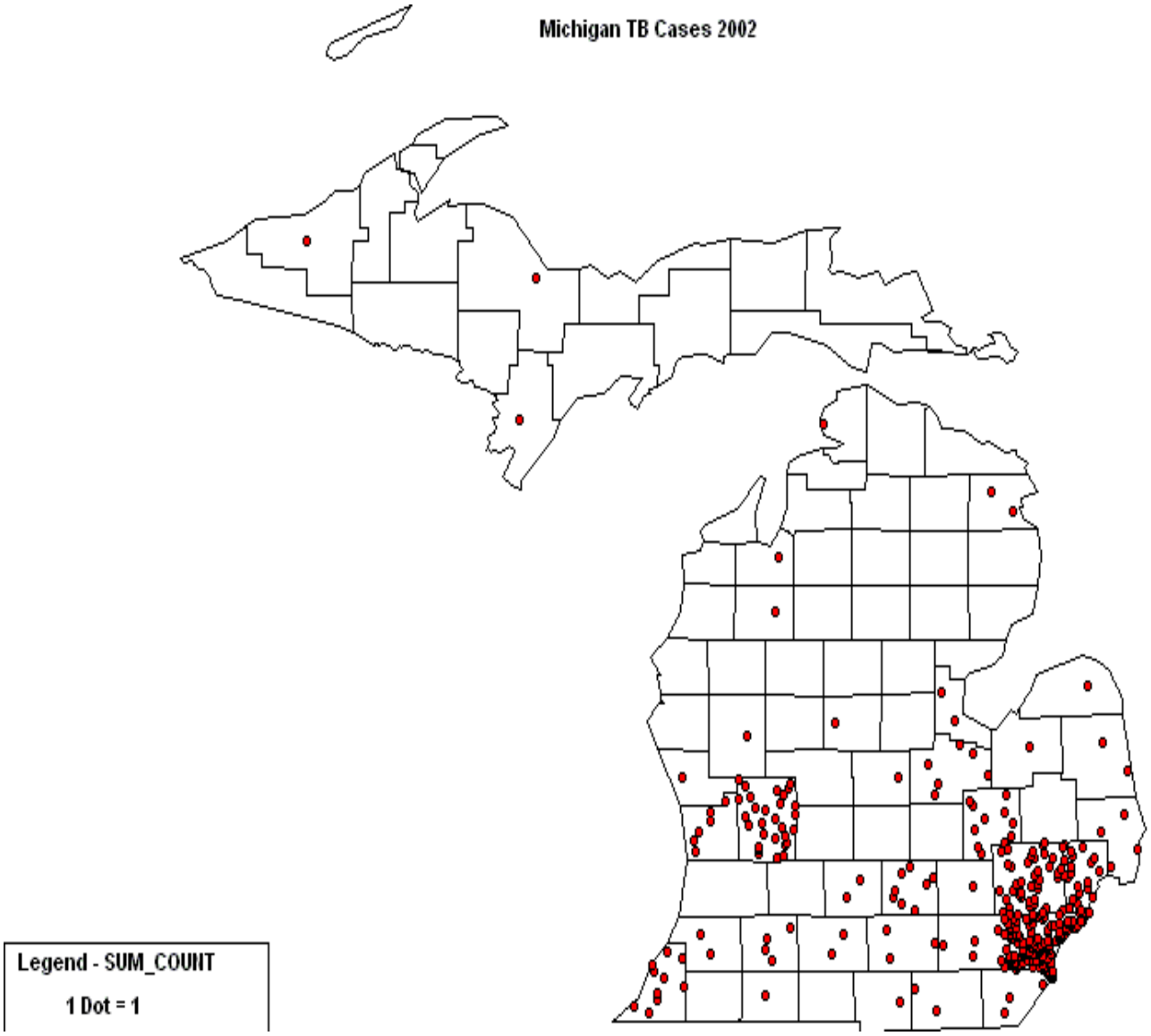
Yes. In 2003 there were 243 active cases of Tuberculosis in Michigan. Although this figure is down from the 315 cases in 2002, it is still significant.

In Michigan there are two populations that are affected by the disease at a disproportionate rate, in 2002:

- Foreign born residents made up 42% of the Michigan TB cases
    - Students
    - Visitors
    - Temporary workers
- African Americans – 41.3% of the Michigan TB cases

Where in Michigan?

Michigan TB Cases: 2002
315 cases
Case rate of 3.2/100,000



What can we do?

Public interest will facilitate efforts to combat Tuberculosis. These efforts require objectives that fall under the categories of:

a) Surveillance and epidemiology -- determining the magnitude and nature of the problem. (Michigan Department of Community Health, Bureau of Epidemiology);

b) Laboratory diagnosis -- improving the rapidity, sensitivity, and reliability of diagnostic methods for drug resistant TB (Michigan Department of Community Health, Bureau of Laboratories);

c) Patient management -- effectively managing patients who have MDR-TB and preventing patients with drug-susceptible TB from developing drug- resistant disease (Local Health Departments, hospitals, private practice Medical Doctors);

d) Screening and preventive therapy -- identifying persons who are infected with or at risk of developing MDR-TB and preventing them from developing clinically active TB (Local Health Departments, Hospitals, Universities, private practice MDs, corporate/business policy for foreign born visitors);

e) Infection control -- minimizing the risk of transmission of drug resistant-TB to patients, workers, and others in institutional settings;

f) Outbreak control (Laws and Regulations in the Michigan Public Health Code);

g) Program evaluation -- ensuring that TB programs are effective in managing patients and preventing drug resistant-TB (accreditation program in cooperation with Michigan Public Health Institute);

h) Information dissemination -- Training and education; and

i) Research to provide new, more effective tools with which to combat drug resistant-TB.

Excerpts taken from the Centers for Disease Control website, Atlanta Georgia and from a presentation by Gabe Palumbo, MBA, MPH, CDC Public Health Advisor in Michigan and Susan Spieldenner, RN, Michigan TB Coordinator, Michigan Department of Community Health.